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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,703	05/14/2001	John Muraca	1503.1002	6536

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EXAMINER

BLECK, CAROLYN M

ART UNIT	PAPER NUMBER
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3626

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,703

Applicant(s)

MURACA, JOHN

Examiner

Carolyn M. Bleck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>14 May 2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the application filed 14 May 2001. Claims 1-14 are pending. The IDS statement filed 14 May 2001 has been entered and considered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(A) Claim 8, line 2, "the location," lacks proper antecedent basis. For purposes of applying prior art, "the location" is assumed to be a location of image data.

(B) Claim 8 recites "the database field location comprises the top X Y coordinates that define the location that the database field will be displayed on the graphic image when the customer application is executed." It is unclear what "the location that the database field will be displayed on the graphic image" means within claim 8. The Examiner

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respectfully submits that it is unclear if the database field is displayed. Appropriate clarification is requested.

(C) Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: a computer processor or structure as part of the apparatus or a means for executing the middleware software.

(D) Claims 3-8 and 9-14 inherit the deficiencies of claims 1 and 2 through dependency, and are therefore rejected for the same reasons as those claims.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 3-8 recite “an apparatus comprising middleware software including a master control file providing interoperability of customer applications between computer platforms including a personal computer, a pocket device, and the Internet.” The current claim language does not clarify that a computer processor or structure is part of the

recited apparatus or that the recited element (i.e. the middleware software) are embodied and executable on a computer readable medium.

Data structures not embodied on a computer readable media are considered descriptive material. They are therefore considered non-statutory because they are not capable of causing a functional change in a computer. As drafted, the claim fails to define any structural and functional interrelationships between the software modules and other elements of a computer that permit the computer program's function to be realized. (See MPEP § 2106)

For a claimed invention to be statutory, the claimed invention must also produce a useful, concrete, and tangible result. Under this analysis, the present language of claims 1 and 3-8 merely recites non-functional descriptive material, as no recitation of executable code being embodied on any medium or data structure is provided. Simply stated, the "middleware software" as recited in claim 1 fails to have a tangible result.

In light of the above, it is respectfully submitted that the invention of claims 1 and 3-8, does not have a tangible result, and thus fails to recite the practical application of an abstract idea to satisfy the requirements of 35 U.S.C. 101.

A similar 101 analysis may be applied to the language of claims 2 and 9-12, which recites similar language to that found in claims 1 and 3-8. Therefore, it is respectfully submitted that the invention of claims 2 and 9-12, also does not have a tangible result, and thus also fails to recite the practical application of an abstract idea to satisfy the requirements of 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 2 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Evans (5,924,074).

(A) As per claim 2, Evans discloses a graphical user interface running on a point of care system, such as wherein the point of care system is a wireless pen computer or laptop computer (Fig. 24, col. 6 lines 9-55, col. 13 lines 12-30).

(B) As per claim 9, Evans discloses an electronic medical records system accessible over the Internet (Fig. 24, col. 2 lines 20-45, col. 16 lines 2-20).

(C) As per claim 10, Evans discloses a system for enabling health care providers to use the point of care system to enter, access, process, analyze, and annotate data from patient records in real-time (col. 5 lines 1-28).

(D) As per claim 11, Evans discloses healthcare providers electronically accessing and annotating patient records, including x-ray images, wherein the healthcare providers

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remotely access the patient records (Fig. 24, col. 5 lines 1-28, col. 7 lines 5-40, col. 13 lines 1-30).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (5,924,074) in view of Applicant's Background of the Invention.

(A) As per claim 1, Evans discloses an electronic medical records system comprising a relational database supporting the Open Database Connectivity (ODBC) model (considered to be "middleware"), wherein ODBC is an application program interface (API) that allows client applications running under Microsoft Windows to access data from a variety of data sources, including relational and non-relational DBMS, wherein these data sources may reside on a client machine or they may be located on a remote server communicating through a network common to the client machine, wherein the clients include desktop PCs, laptop computers, and pen computers, and the client machines communicate with the servers over the Internet (Fig. 24, col. 14 lines 8-25).

Evans does not explicitly disclose a "master control file." It appears, however, that ODBC is a form of a master control file when viewed in light of Applicant's

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specification. The master control file is also well known as evidenced by Applicant's admitted prior art (see Figure 3 and pg. 3, par. 3 of Applicant's specification). In particular, Applicant's Figure 3 discloses a master control file and page 3, par. 3 describes "One way of providing a common set of medical information communications protocols, or common standards, is by an architecture which includes the use of a master control tile. A master control file (or MCF) is middleware software storing information which, when read by a computer program referred to as an engine, provides an interface between an application program and the WINDOWS operating system. The master control file (or MCF) provides an open, interoperable, platform and language independent distributed (MCF) architecture. This approach has been enormously successful and has been adopted by numerous large firms around the world as the basic architecture for their complex Patient Record information systems. This infrastructure provides a great deal of power, scalability, and interoperability."

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Applicant's Background of the Invention within the system of Evans with the motivation of allowing client applications to access data from a variety of data sources (Evans; col. 14 lines 11-14).

(B) As per claim 3, Evans discloses the ODBC/ API allowing client applications to access data from a variety of data sources, wherein the client is able to store, annotate, enter, and access patient medical records stored in the patient data repository (col. 5 lines 1-28, col. 14 lines 8-25).

(C) As per claim 4, Evans discloses a data manager/ patient locator (reads on "master control file") creating a data structure having the Patient ID and the patient's name, the patient data structure includes pointers to data structures having data within a patient record captured by the point of care system (i.e., a digital x-ray image file), wherein there are multiple data structures created by the patient locator including patient data, interface files, clinical data, progress, notes (see Fig. 13), wherein within those files there are types of data (reads on "field names, attributes") (Fig. 12, col. 8 lines 29-60).

(D) As per claim 5, Evans discloses database tables having a PID and other field names (see Figure 13, Name, Drug Code, Protocol Code) used to locate data, store data, and retrieve data (Fig. 13, col. 5 lines 1-28, col. 8 line 29 to col. 9 line 37).

(E) As per claim 6, Evans discloses pointers to patient data structures, including databases such as the reference database, wherein the patient data structure and patient locator use the pointers to used to locate data, store data, and retrieve data (Fig. 13, col. 5 lines 1-28, col. 8 line 29 to col. 9 line 37).

(F) As per claim 7, Evans discloses pointers to image data including scan (TIF), ink (BMP), an x-ray, cat scan, or MRI, wherein the images display when the healthcare provider accesses those files using the data manager (Fig. 13-14, col. 4 line 64 to col. 5 line 27, col. 8 line 29- col. 9 line 37).

(G) As per claim 8, Evans discloses the data manager tracking the location and description of patient data, including the image data, wherein the image data is displayed upon the healthcare provider retrieving the data (Fig. 13-14, col. 4 line 64 to col. 5 line 27, col. 8 line 29- col. 9 line 37).

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (5,924,074) in view of Swanson et al. (6,112,183).

(A) As per claim 12, Evans fails to expressly disclose compressing, encrypting, and encapsulating patient episode data into a secure file. However, Evans discloses capturing data in a point of care system (col. 16 lines 2-20) and securing data using a tiered-password system (col. 15 lines 8-32). The Examiner respectfully submits that it is well known in the art to compress data, encrypt data, and encapsulate patient data. For example, note column 2, lines 26-31 of Swanson discussing encryption, compression, and encapsulation. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Swanson within the method of Evans with the motivation of providing superior protection of patient data (Evans; col. 15 lines 29-32).

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11. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (5,924,074) and Swanson et al. (6,112,183) as applied to claim 12, and further in view of Haudenschild (6,665,647).

(A) As per claims 13-14, Evans and Swanson fail to expressly disclose transmitting a secure file to a repository mail server, which de-encapsulates and uncompresses the secure file and stores the de-encapsulated, uncompressed secure file into a patient medical record and messages are transmitted to an assigned physician notifying the assigned physician of the receipt of the patient episode data. Haudenschild discloses sensitive data being encrypted at one end of transmission and then decrypted at the other end of transmission and messaging between parties (col. 6 lines 48-65). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Haudenschild within the apparatus of Evans and Swanson with the motivation of protecting sensitive data (Haudenschild; col. 6 lines 48-65).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The cited but not applied prior art teaches an integrated system and method for ordering and cumulative results reporting of medical tests (6,108,713) and system and method for providing secure transmission, search, and storage of data (6,785,810).

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn Bleck whose telephone number is (571) 272-6767. The Examiner can normally be reached on Monday-Thursday, 8:00am – 5:30pm, and from 8:30am – 5:00pm on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached at (571) 272-6776.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

14. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9306 or (703) 872-9326 [Official communications]

(703) 872-9327 [After Final communications labeled "Box AF"]

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(571) 273-6767 [Informal/ Draft communications, labeled
"PROPOSED" or "DRAFT"]

Hand-delivered responses should be brought to the Knox Building, Alexandria, VA.

CB

CB

August 16, 2005


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